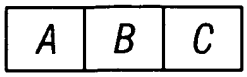
A
B
C

FIG. 1

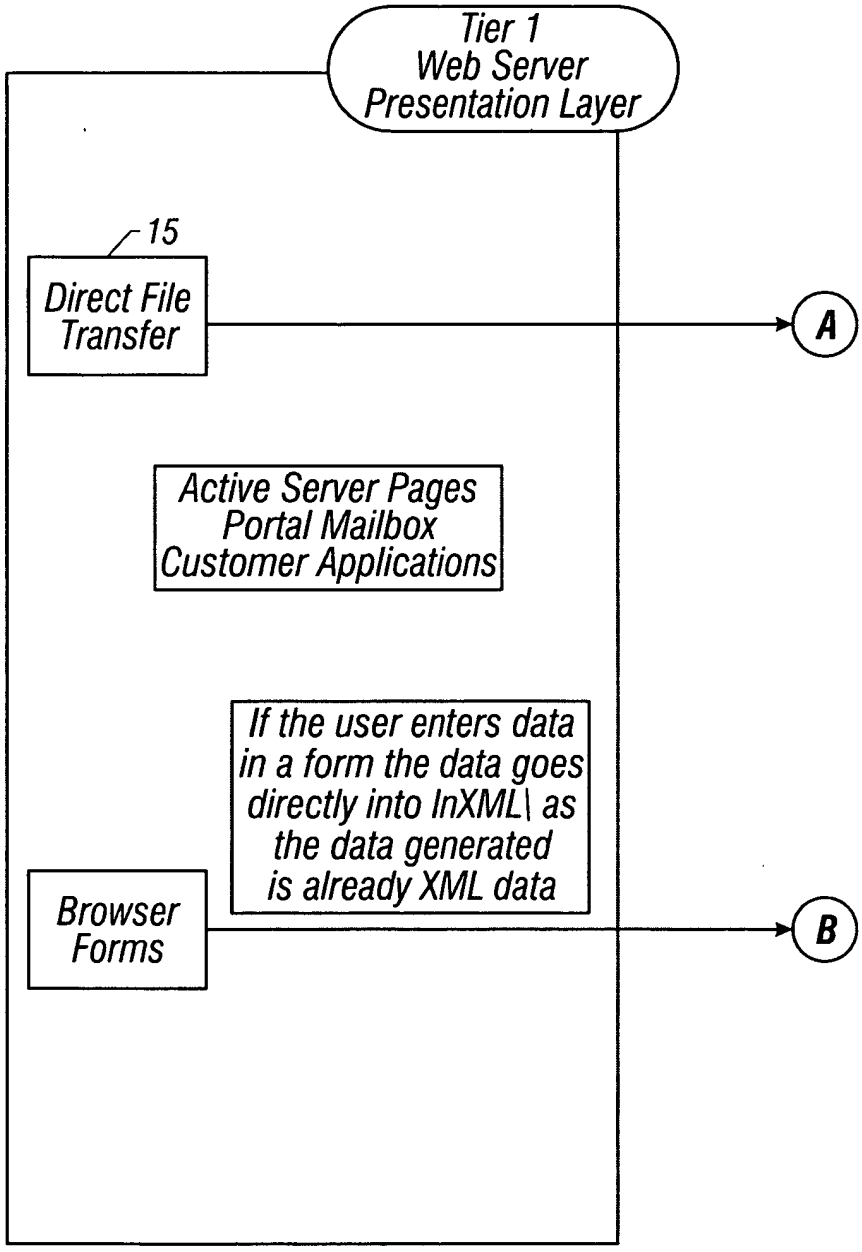
Tier 1
Web Server
Presentation Layer
15
Direct File
Transfer
A
Active Server Pages
Portal Mailbox
Customer Applications
If the user enters data
in a form the data goes
directly into InXML\ as
the data generated
is already XML data
Browser
Forms
B

FIG. 1A

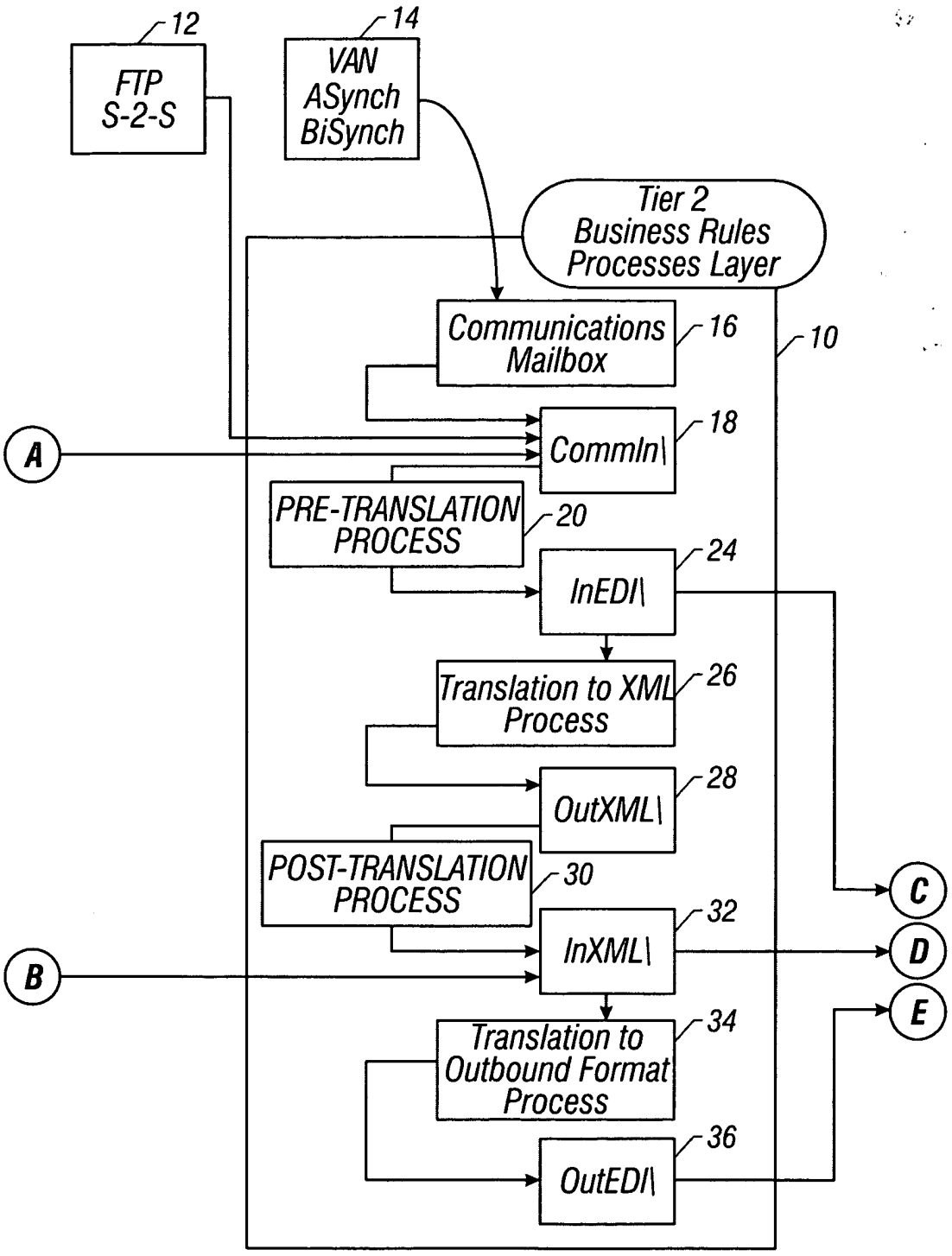
12
FTP
S-2-S
14
VAN
ASynch
BiSynch
Tier 2
Business Rules
Processes Layer
Communications
Mailbox
16
10
CommIn\
18
A
PRE-TRANSLATION
PROCESS
20
InEDI\
24
Translation to XML
Process
26
OutXML\
28
POST-TRANSLATION
PROCESS
30
InXML\
32
B
C
D
E
Translation to
Outbound Format
Process
34
OutEDI\
36

FIG. 1B

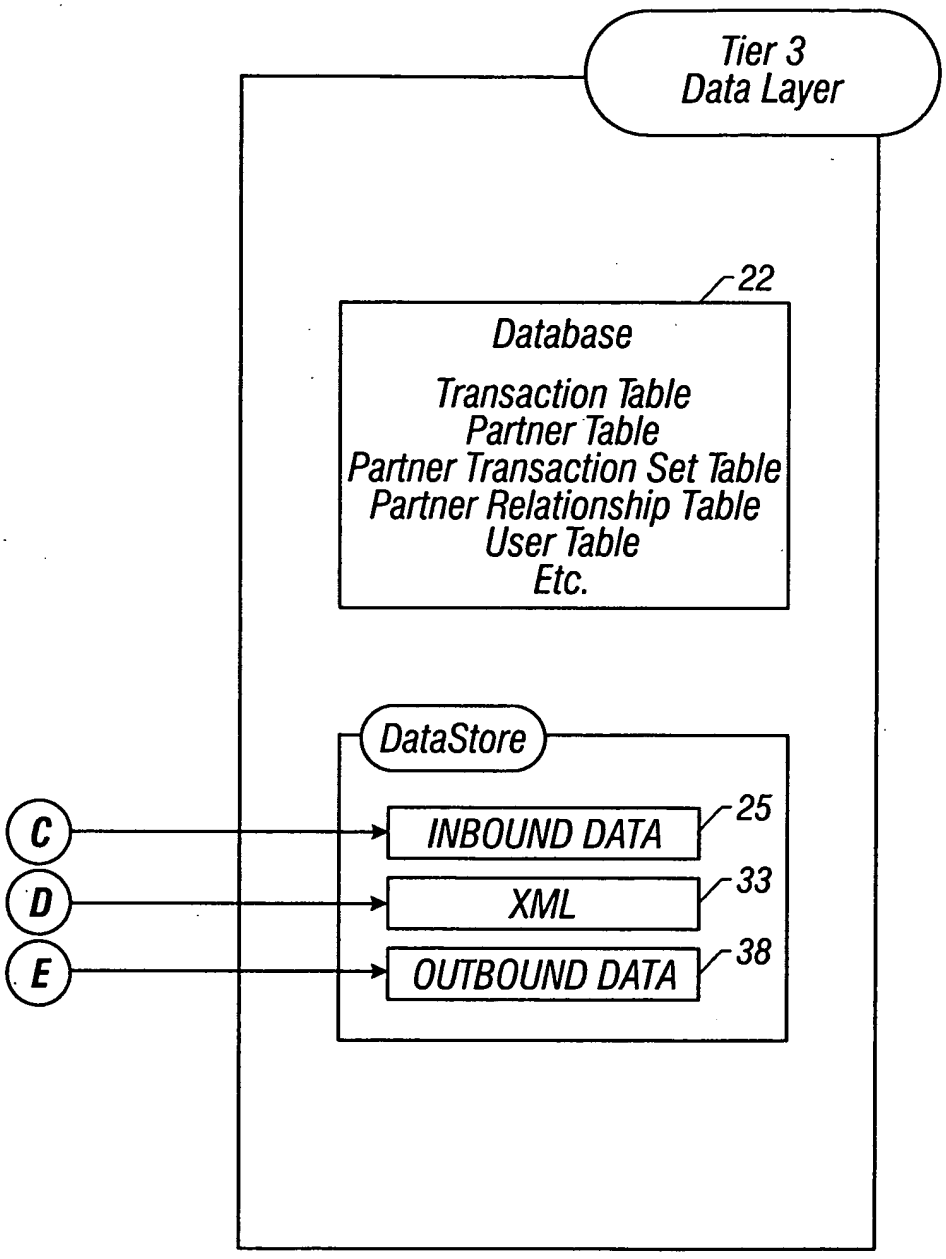
Tier 3
Data Layer
22
Database
Transaction Table
Partner Table
Partner Transaction Set Table
Partner Relationship Table
User Table
Etc.
DataStore
C
D
E
INBOUND DATA
25
XML
33
OUTBOUND DATA
38

FIG. 1C

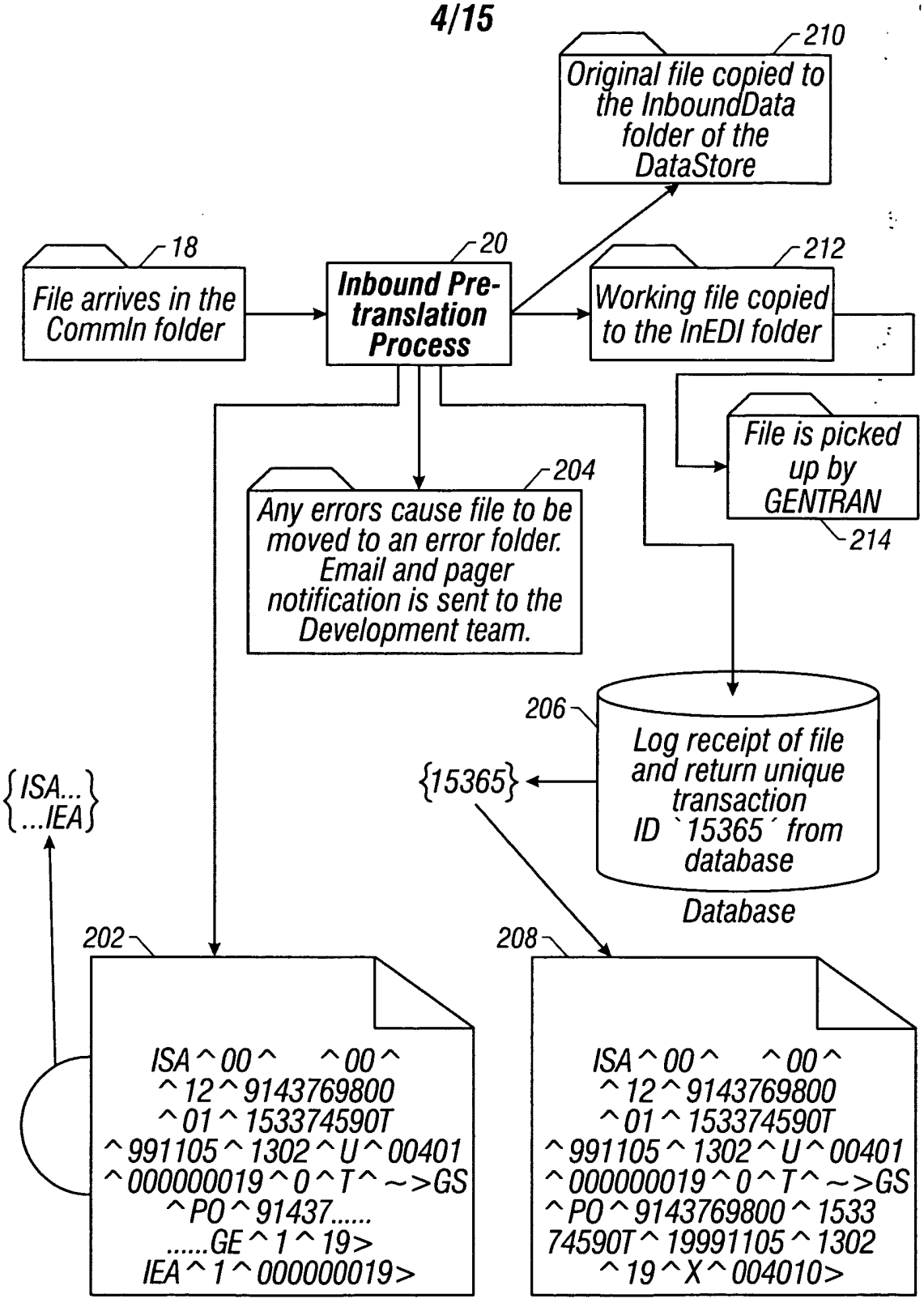
210
Original file copied to the InboundData folder of the DataStore
18
File arrives in the CommIn folder
20
Inbound Pre-translation Process
212
Working file copied to the InEDI folder
File is picked up by GENTRAN
214
204
Any errors cause file to be moved to an error folder. Email and pager notification is sent to the Development team.
206
Log receipt of file and return unique transaction ID `15365´ from database
Database
{15365}
{ISA... ...IEA}
202
ISA^00^ ^00^
^12^9143769800
^01^153374590T
^991105^1302^U^00401
^000000019^0^T^~>GS
^PO^91437.....
.....GE^1^19>
IEA^1^000000019>
208
ISA^00^ ^00^
^12^9143769800
^01^153374590T
^991105^1302^U^00401
^000000019^0^T^~>GS
^PO^9143769800^1533
74590T^19991105^1302
^19^X^004010>

FIG. 2

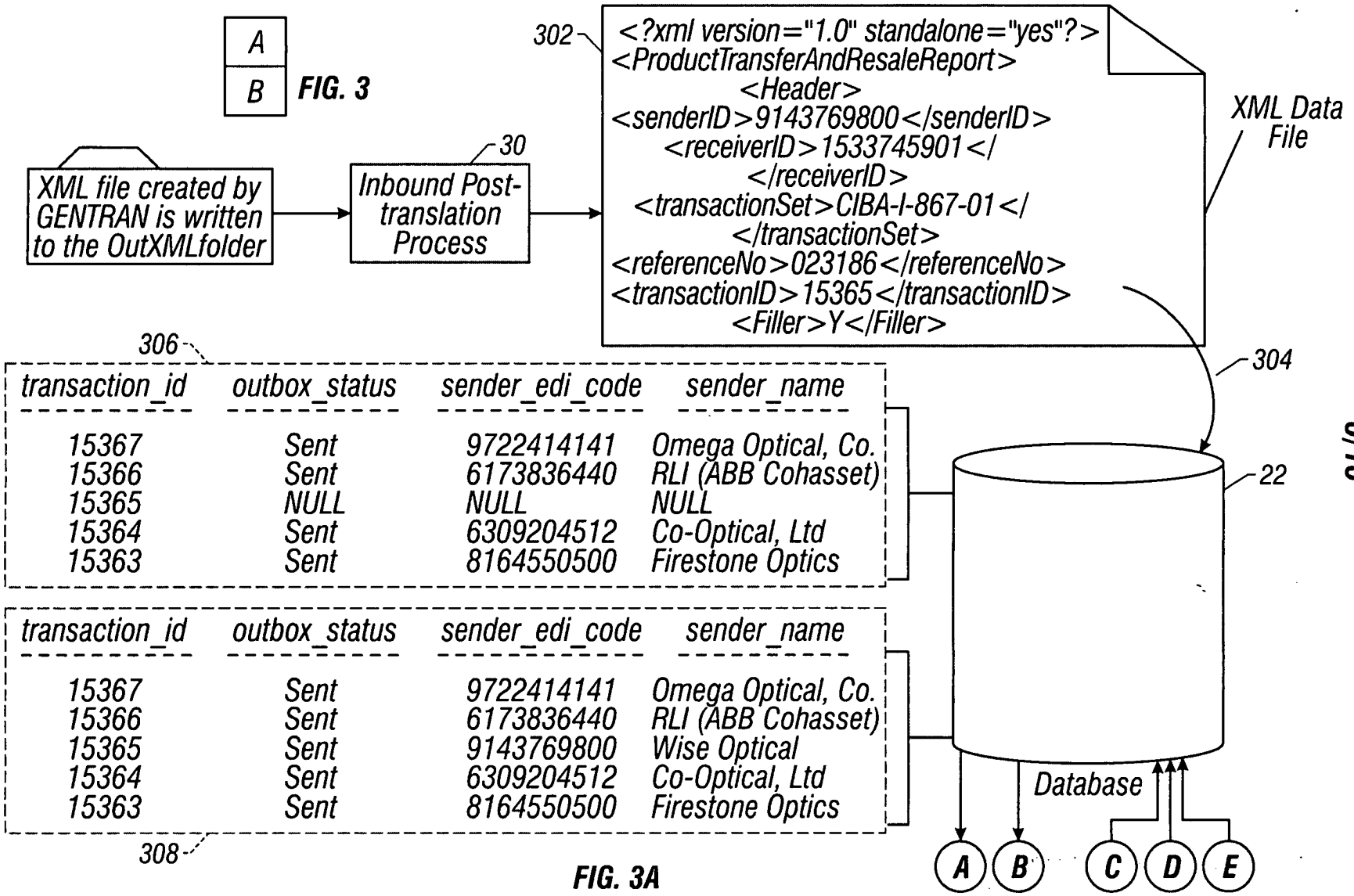
A
B
FIG. 3
XML file created by GENTRAN is written to the OutXMLfolder
30
Inbound Post-translation Process
302
<?xml version="1.0" standalone="yes"?>
<ProductTransferAndResaleReport>
<Header>
<senderID>9143769800</senderID>
<receiverID>1533745901</
</receiverID>
<transactionSet>CIBA-I-867-01</
</transactionSet>
<referenceNo>023186</referenceNo>
<transactionID>15365</transactionID>
<Filler>Y</Filler>
XML Data File
304
306
transaction_id | outbox_status | sender_edi_code | sender_name
15367 | Sent | 9722414141 | Omega Optical, Co.
15366 | Sent | 6173836440 | RLI (ABB Cohasset)
15365 | NULL | NULL | NULL
15364 | Sent | 6309204512 | Co-Optical, Ltd
15363 | Sent | 8164550500 | Firestone Optics
transaction_id | outbox_status | sender_edi_code | sender_name
15367 | Sent | 9722414141 | Omega Optical, Co.
15366 | Sent | 6173836440 | RLI (ABB Cohasset)
15365 | Sent | 9143769800 | Wise Optical
15364 | Sent | 6309204512 | Co-Optical, Ltd
15363 | Sent | 8164550500 | Firestone Optics
308
22
Database
A
B
C
D
E

FIG. 3A

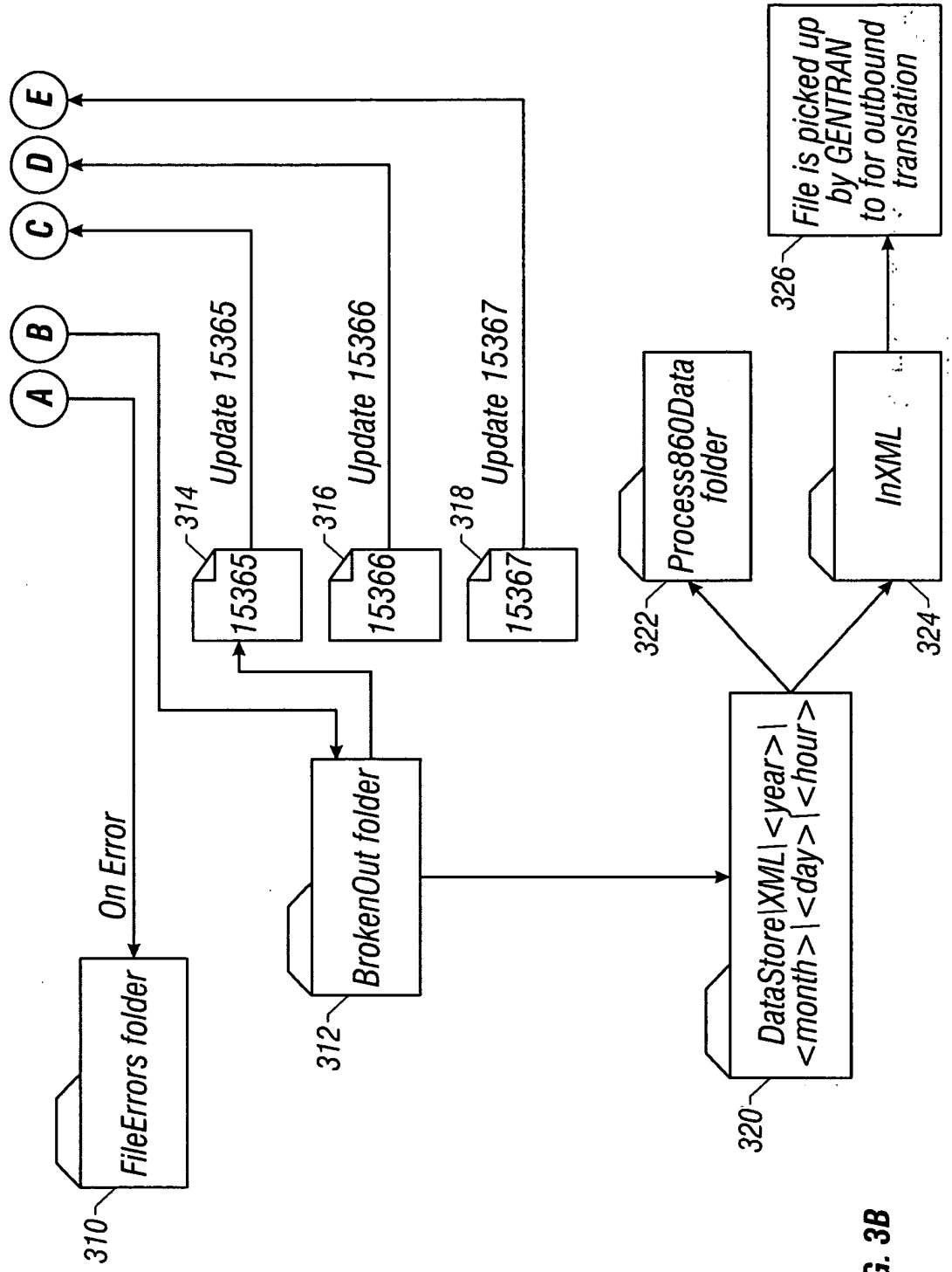
A
B
C
D
E
On Error
FileErrors folder
310
BrokenOut folder
312
Update 15365
314
15365
Update 15366
316
15366
Update 15367
318
15367
DataStore\XML\<year>\<month>\<day>\<hour>
320
Process860Data folder
322
InXML
324
File is picked up by GENTRAN to for outbound translation
326

FIG. 3B

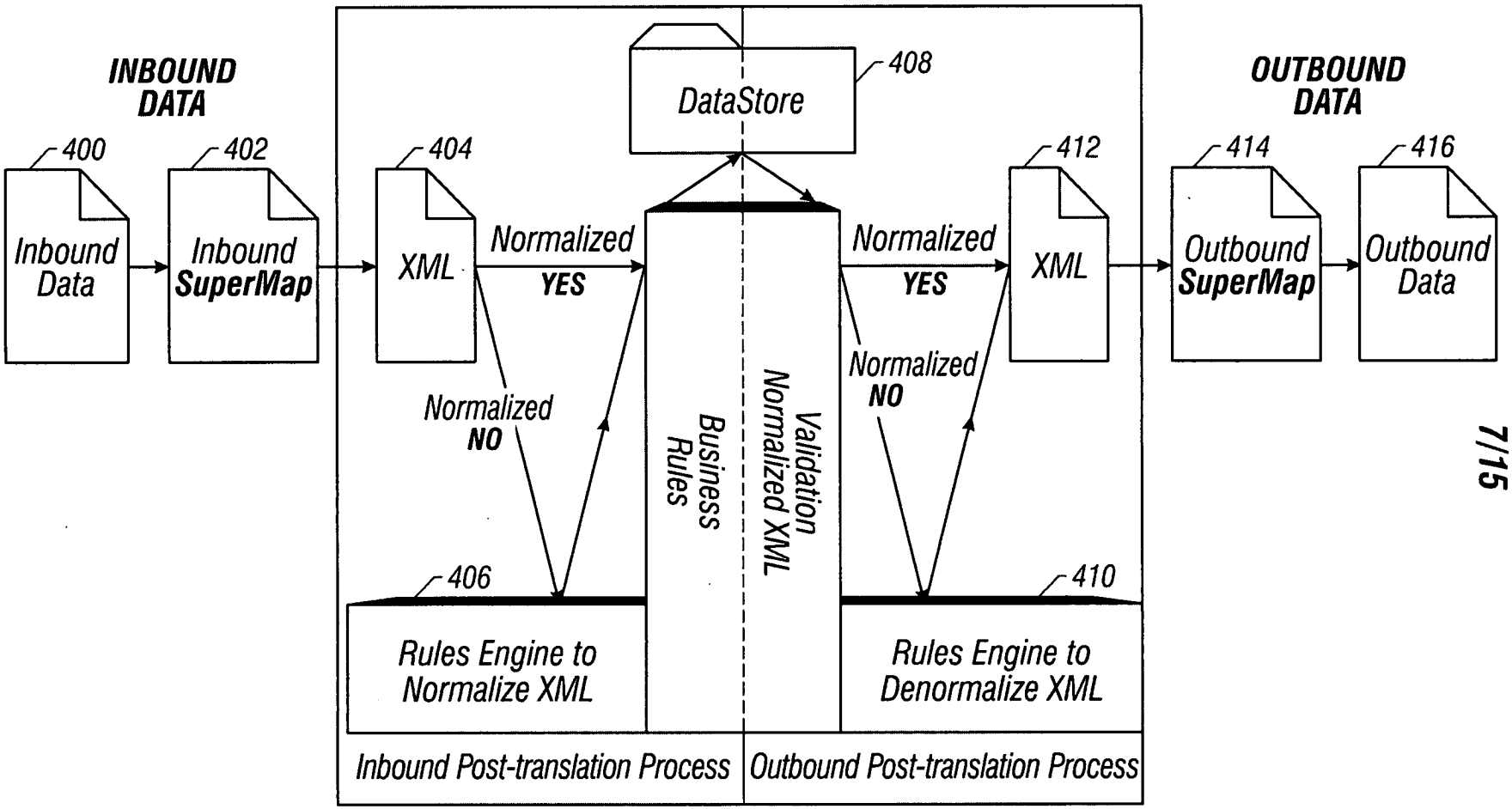
INBOUND DATA
400
Inbound Data
402
Inbound SuperMap
404
XML
Normalized YES
Normalized NO
DataStore
408
Business Rules
Validation Normalized XML
406
Rules Engine to Normalize XML
410
Rules Engine to Denormalize XML
Inbound Post-translation Process
Outbound Post-translation Process
412
XML
Normalized YES
Normalized NO
OUTBOUND DATA
414
Outbound SuperMap
416
Outbound Data

FIG. 4

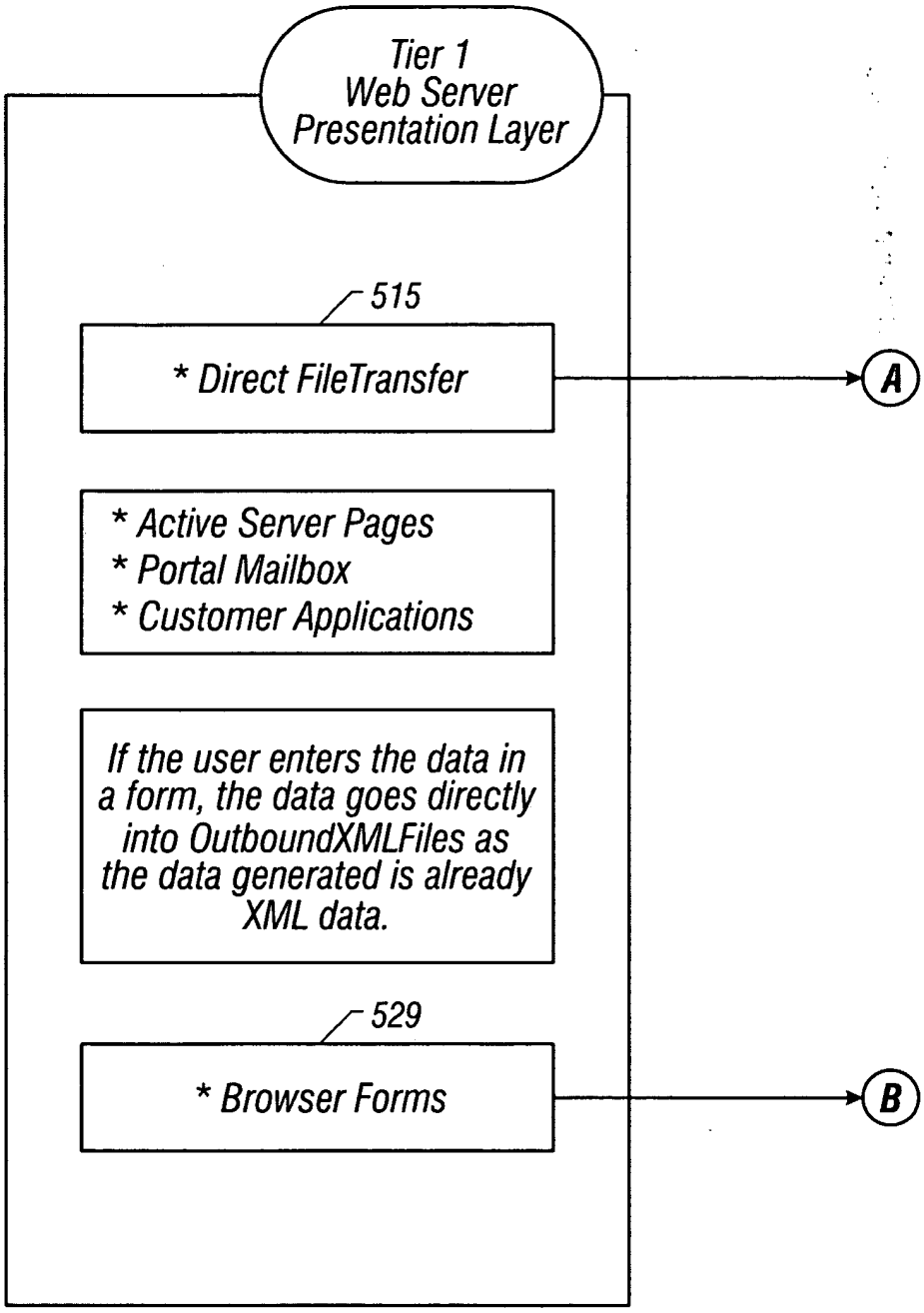
Tier 1
Web Server
Presentation Layer
515
* Direct FileTransfer
A
* Active Server Pages
* Portal Mailbox
* Customer Applications
If the user enters the data in a form, the data goes directly into OutboundXMLFiles as the data generated is already XML data.
529
* Browser Forms
B

FIG. 5A

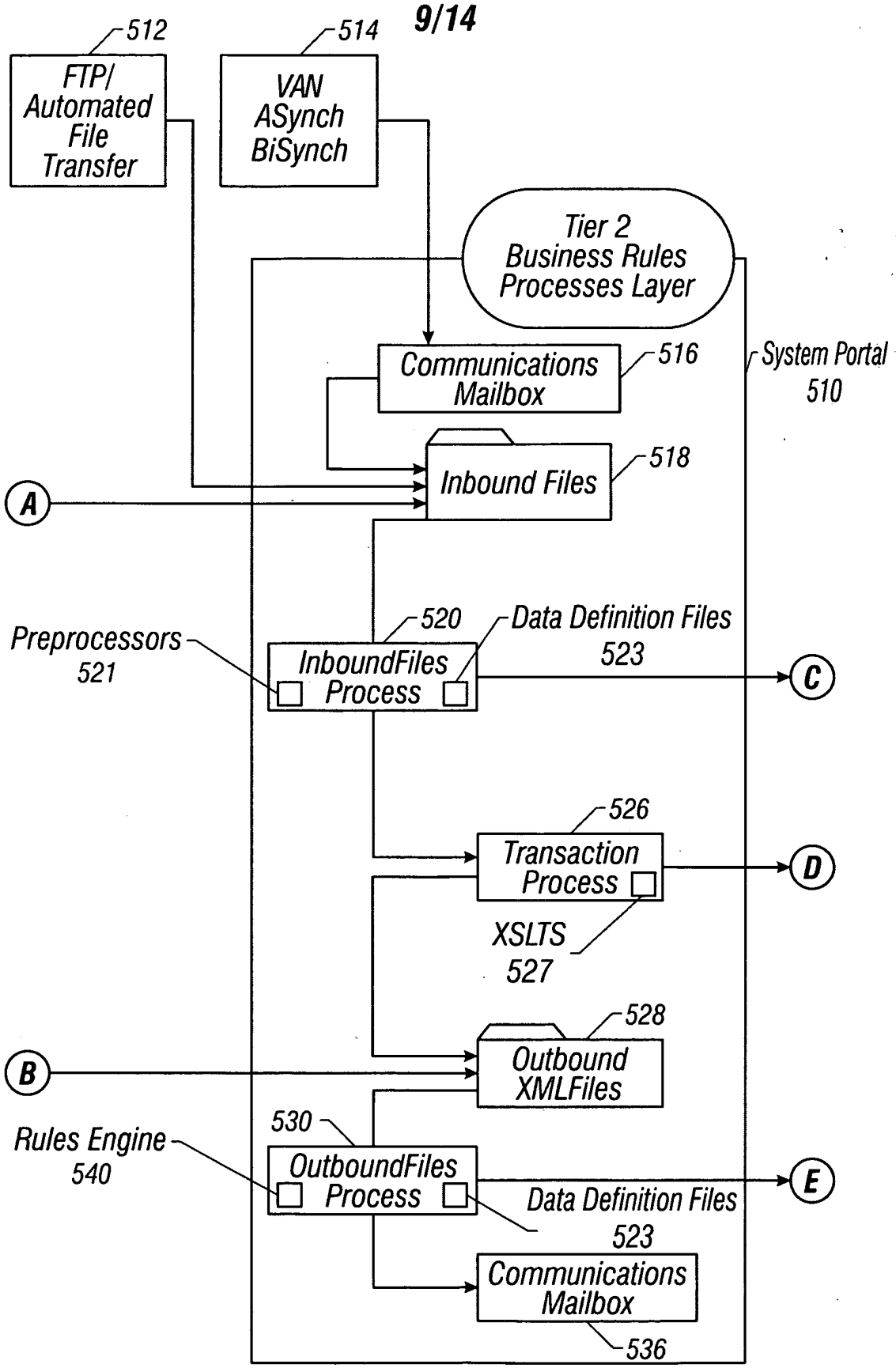
512
FTP/ Automated File Transfer
514
VAN ASynch BiSynch
Tier 2 Business Rules Processes Layer
System Portal 510
Communications Mailbox
516
Inbound Files
518
A
Preprocessors 521
520
InboundFiles Process
Data Definition Files 523
C
526
Transaction Process
D
XSLTS 527
528
Outbound XMLFiles
B
530
Rules Engine 540
OutboundFiles Process
E
Data Definition Files 523
Communications Mailbox
536

FIG. 5B

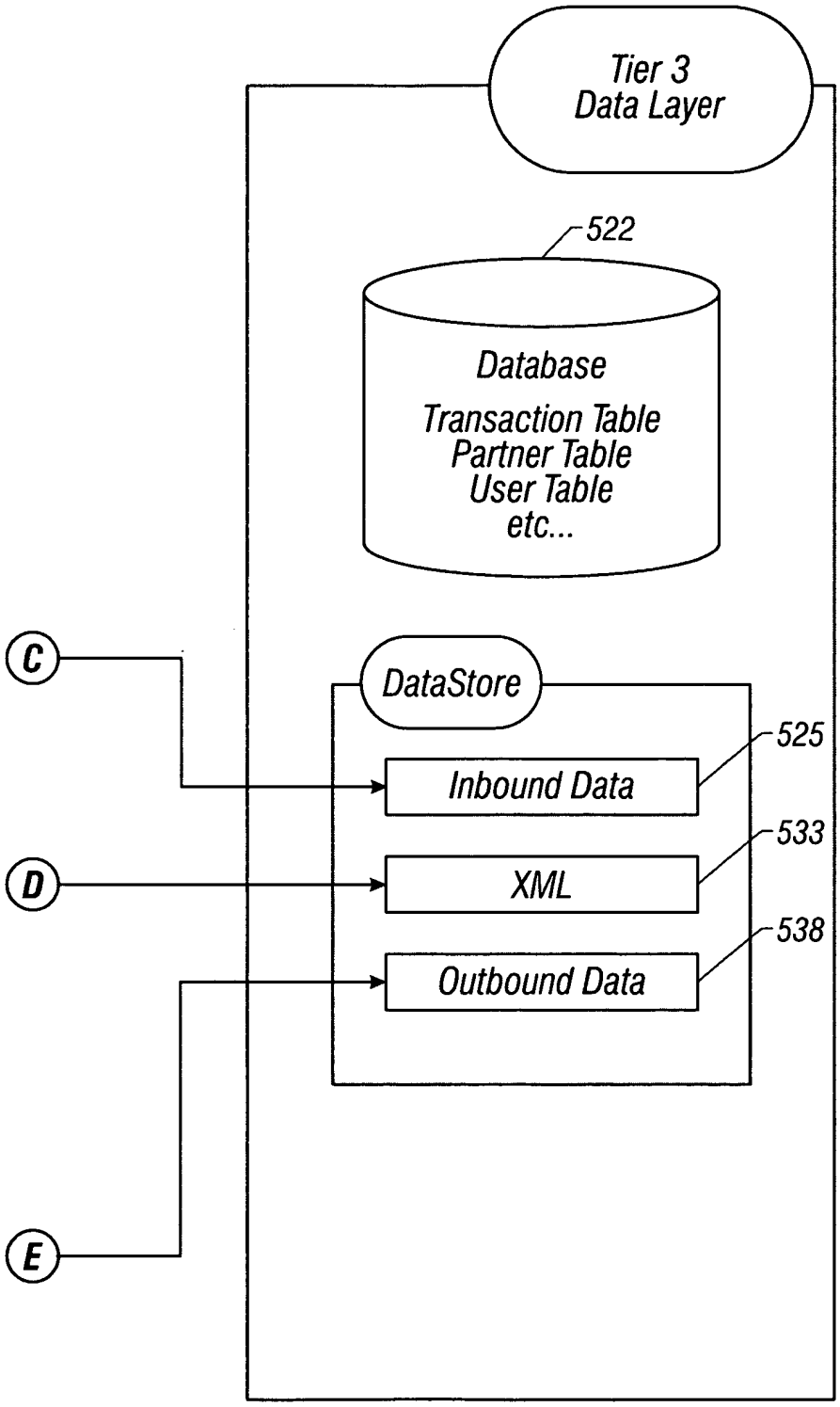
Tier 3
Data Layer
522
Database
Transaction Table
Partner Table
User Table
etc...
C
DataStore
525
Inbound Data
533
D
XML
538
Outbound Data
E

FIG. 5C

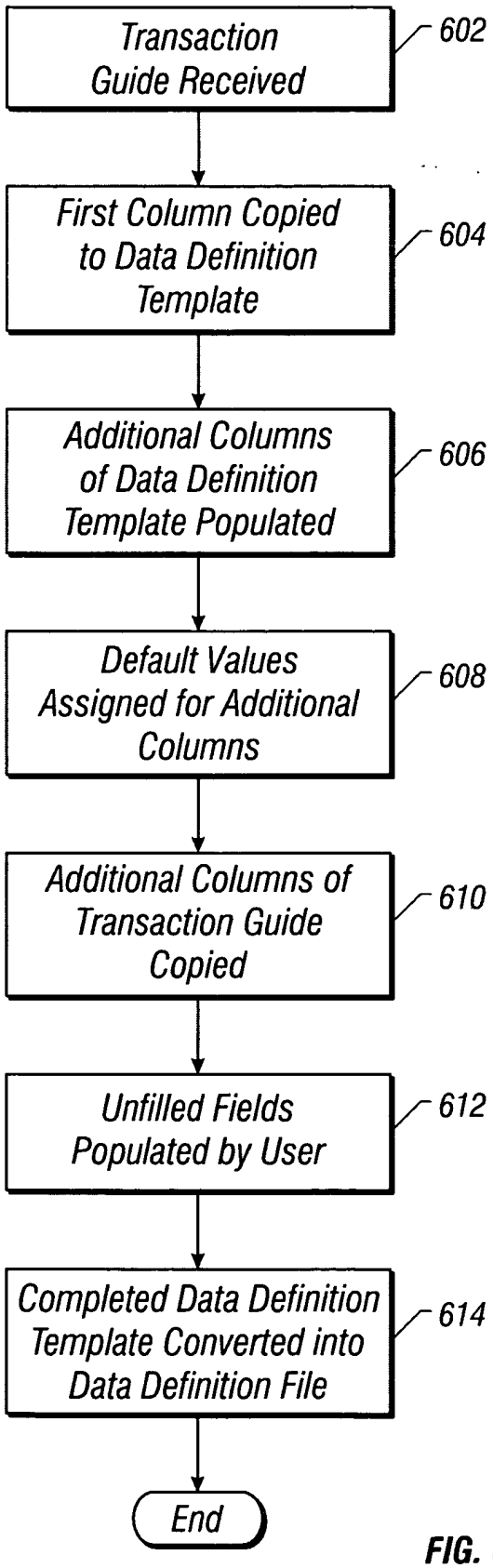
Transaction Guide Received
602
First Column Copied to Data Definition Template
604
Additional Columns of Data Definition Template Populated
606
Default Values Assigned for Additional Columns
608
Additional Columns of Transaction Guide Copied
610
Unfilled Fields Populated by User
612
Completed Data Definition Template Converted into Data Definition File
614
End

FIG. 6

Step 710 : Idoc Implementation Guide

```
BEGIN_SEGMENT  E2EDK02
LEVEL   02
STATUS   OPTIONAL
LOOPMIN   0000000001
LOOPMAX   0000000010
    BEGIN_FIELDS
    NAME   QUALF
    TEXT    IDOC QUALIFIER REFERENCE DOCUMENT
    TYPE    CHARACTER
    LENGTH    000003
    FIELD_POS     0001
    BYTE_FIRST      000064
    BYTE_LAST    000066
    VALUE   001
    VALUE_TEXT   CUSTOMER PURCHASE ORDER

    NAME   BELNR
    TEXT     IDOC DOCUMENT NUMBER
    TYPE    CHARACTER
    LENGTH    000035
    FIELD_POS     0002
    BYTE_FIRST      000067
    BYTE_LAST     000101
```

FIG. 7A-1

Step 720 : Idoc Implementation Guide as XML

```
<BEGIN_SEGMENT>E2EDKO2</BEGIN_SEGMENT>
<LEVEL>02</LEVEL>
<STATUS>OPTIONAL</STATUS>
<LOOPMIN>0000000001</LOOPMIN>
<LOOPMAX>0000000010</LOOPMAX>
    <BEGIN_FIELDS/>
    <NAME>QUALF</NAME>
    <TEXT>IDOC  qualifier reference document</TEXT>
    <TYPE>CHARACTER</TYPE>
    <LENGTH>000003</LENGTH>
    <FIELD_POS> 0001</FIELD_POS>
    <BYTE_FIRST>000064</BYTE_FIRST>
    <BYTE_LAST>000066</BYTE_LAST>
    <VALUE>001</VALUE>
    <VALUE_TEXT>Customer purchase order</VALUE_TEXT>

    <NAME>BELNR</NAME>
    <TEXT>IDOC document number</TEXT>
    <TYPE>CHARACTER</TYPE>
    <LENGTH>000035</LENGTH>
    <FIELD_POS>0002</FIELD_POS>
    <BYTE_FIRST>000067</BYTE_FIRST>
    <BYTE_LAST>000101</BYTE_LAST>
```

FIG. 7A-2

Step 730: Idoc EDD

```
<RECORD NAME="E2EDK02" ACTIVE="yes" XMLTAG="E2EDK02" TAG="E2EDK02"
TAGPOSITION="0" MINOCCURENCE="0" MAXOCCURRENCE="10">
<ELEMENT NAME="QUALF" DESCRIPTION="IDOC qualifier reference document" ACTIVE="yes"
XMLTAG="QUALF" MINLENGTH="0" MAXLENGTH="3" OFFSET="63" REQUIRED="no"
JUSTIFICATION="left" DATATYPE="string"/>
<ELEMENT NAME="BELNR" DESCRIPTION="IDOC document number" ACTIVE="yes"
XMLTAG="BELNR" MINLENGTH="0" MAXLENGTH="35" OFFSET="66" REQUIRED="no"
JUSTIFICATION="left" DATATYPE="string"/>
```

Step 740: Idoc Source Data

```
E2EDK02          021000000000314584400001100000002001459001218O
20001025082600
```

Step 750: Idoc Intermediate XML (EDD output)

```
<E2EDK02>
   <QUALF>001</QUALF>
   <BELNR>4590012180</BELNR>
```

Step 760: Idoc XSLT

```
<DocumentHeader>
     <xsl:for-each select="./E2EDK02[./QUALF = '001']">
          <poNumber><xsl:value-of select="./QUALF"/></poNumber>
          <poNumber><xsl:value-of select="./BELNR"/></poNumber>
     </xsl:for-each>
```

Step 770: Idoc Normalized XML

```
<DocumentHeader>
          <qualifier>001</qualifier>
          <poNumber>4590012180</poNumber>
```

FIG. 7B

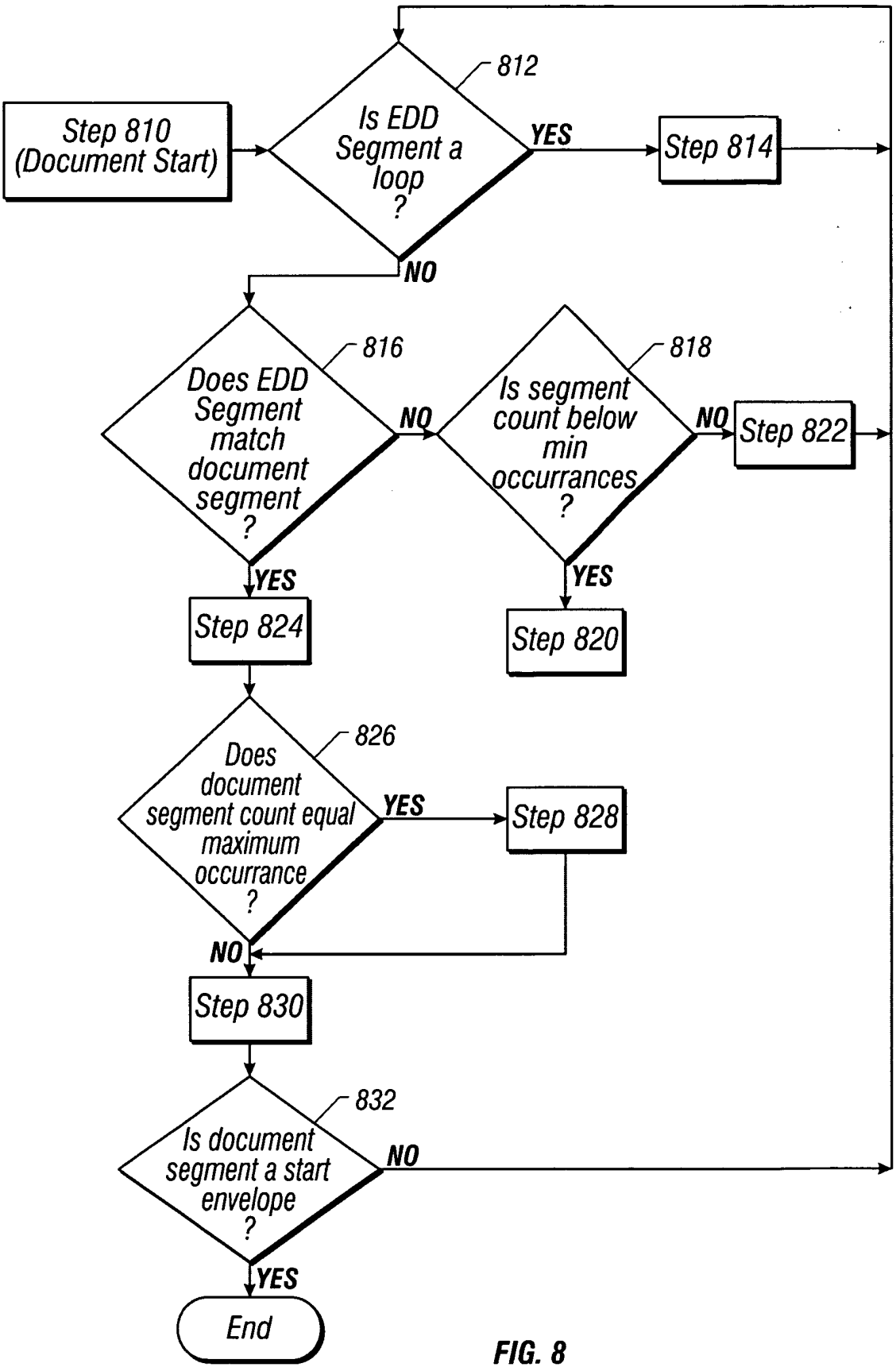
Step 810
(Document Start)
812
Is EDD Segment a loop ?
YES
Step 814
NO
816
Does EDD Segment match document segment ?
NO
818
Is segment count below min occurrances ?
NO
Step 822
YES
Step 824
YES
Step 820
826
Does document segment count equal maximum occurrance ?
YES
Step 828
NO
Step 830
832
Is document segment a start envelope ?
NO
YES
End

FIG. 8